

Applicant: Yokoyama, et al.
Serial No.: 09/974,628
Filed: October 10, 2001
Title: Preliminary Amendment
Page: 2

Replace the two paragraphs beginning at page 4, line 18 with the following clean version:

The radical polymerization catalyst used in the preparation of the acrylic resin can vary widely, and can include azo compounds, peroxide compounds, sulfides, sulfines, diazo-compounds, nitroso- compounds, and the like. When the acrylic resin is copolymerized from compounds having two or more unsaturated groups in their molecule as described above, a radical polymerization catalyst is preferably used, generally in the range of about from 1 to 5 % by weight based on a total amount of all unsaturated monomers used by production of the acrylic resin. The specific amount of radical polymerization catalyst will depend on a kind and amount of the monomer having two or more unsaturated groups in its structure.

In the preparation of the acrylic resin, it is desirable to use a solvent which is capable of dissolving the copolymer being produced and miscible with water so that gelation does not take place during the copolymerization reaction. Examples of such solvents which can be used include ethylene glycol monoethyl ether solvent, diethylene glycol monoethyl ether solvent, ethylene glycol monoethyl ether acetate solvent, alcoholic solvent and the like.

Replace the paragraph beginning at page 7, line 23 with the following clean version:

Crosslinking agents which can be used in the preparation of the coating compositions of the present invention can vary widely. The crosslinking agents preferably are compatible with the acrylic resin with the aid of one or more common organic solvent. The crosslinking agents generally are not completely compatible with the acrylic resin. It has been found that complete compatibility interferes with the desirable matte finish of the coatings prepared from the present compositions. Typical crosslinking agents which can be used in the present invention include melamine resin and/or blocked polyisocyanates. These crosslinking agents react hydroxy groups in the acrylic resin and the emulsified polymer to form a crosslinked film.

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Replace the paragraph beginning at page 10, line 11 with the following clean version:

A reactor equipped with a thermometer, a thermostat, a reflux condenser and a drop device was charged with 100 parts of isopropyl alcohol, 150 parts of n-butyl alcohol and 100 parts of butyl ethylene glycol monoethyl ether and kept at 85°C. A mixture of 50 parts of styrene, 200 parts of methyl methacrylate, 100 parts of n-butylacrylate, 50 parts of ethylacrylate, 70 parts of 2-hydroxyethylacrylate, 30 parts of acrylic acid, and 4 parts of azobisisdimethylvaleronitrile was then added to the reactor dropwise over a period of 3 hours, followed by adding 5 parts of azobisisdimethylvaleronitrile. The resulting mixture was maintained at a temperature of 85°C for 3 hours to obtain an acrylic resin (A-1) varnish having a solids content of 59 % by weight. The resulting resin had a weight average molecular weight of about 50,000, an acid value of 46 mg KOH/g, a hydroxy value of 67 mg KOH/g, and an SP of 9.49.

Replace the paragraph at page 10, line 21 with the following clean version:

A reactor equipped with a thermometer, a thermostat, a reflux condenser and a drop device was charged with 100 parts of isopropyl alcohol and 150 parts of n-butyl alcohol and 100 parts of butyl ethylene glycol monoethyl ether and kept at 85°C. A mixture of 50 parts of styrene, 190 parts of methyl methacrylate, 100 parts of n-butylacrylate, 50 parts of ethylacrylate, 70 parts of 2-hydroxyethylacrylate, 30 parts of acrylic acid, 10 parts of triallylisocyanurate and 4 parts of azobisisdimethylvaleronitrile was then added to the reactor dropwise over a period of 3 hours, followed by adding 5 parts of azobisisdimethylvaleronitrile. The resulting mixture was maintained at a temperature of 85°C for 3 hours to obtain an acrylic resin (A-2) varnish having a solids content of 59% by weight. The resulting resin had a weight average molecular weight of about 60,000, an acid value of 46 mg KOH/g, a hydroxy value of 67 mg KOH/g, and an SP of 9.49.

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Replace the Table 1 at page 12 with the following clean version:

			Preparation Example					
			3	4	5	6	7	
Name of Emulsified Polymer			B-1	B-2	B-3	B-4	B-5	
Formulations	Emulsified Monomer (1)	[SE-10N]	1	1	1	1	1	
		Deionized water	30	30	30	30	30	
		Styrene	22	22	20	30	22	
		n-butylacrylate	22	22	20	16	20	
		1,6-hexanedioldiacrylate	2	4	10	2	8	
		[KBM-503]	4	2		2		
	Emulsified Monomer (2)	[SE-10N]	1	1	1	1	1	
		Deionized water	30	30	30	30	30	
		styrene	16	12	12	10	20	
		n-butylacrylate	16	12	12	20	22	
		1,6-hexanedioldiacrylate	2	2	2		4	
		[KBM-503]	14	22	22	16		
		2-hydroxyethylacrylate	2	2	2	4	4	
Solid content / % by weight			20	20	20	20	20	
Particle size/nm			120	110	102	128	123	